

REMARKS

Claims 1 to 118 were presented by Applicants. Claims 1 and 81 are amended. No new matter is being added.

Applicants thank the Examiner for participating in a telephone interview with the undersigned attorney.

The Examiner rejected claims 1-6, 20-21, 40, 45, 55, 81-84, 98-99 and 118 under 35 U.S.C. § 103(a) as obvious in view of the combination of Jacobs, Motoyama and Gopal. Applicants traverse.

As amended, claim 81 now recites:

A method for printing time-based media, the method comprising:
receiving time-based media data from a media source;
receiving user input, the user input specifying a multimedia function to perform on the time-based media, an amount of processing to be performed by a printer, and an amount of processing to be performed by a processing device;
determining from the user input a portion of the processing to be allocated to the printer and a portion of the processing to be allocated to the processing device;
allocating the determined processing portions to the printer and the processing device;
performing, by the printer, the allocated portion of processing to carry out the specified multimedia function;
performing, by the processing device, the allocated portion of processing to carry out the specified multimedia function;
producing output on the printer associated with the processed media data; and
producing an electronic output associated with the processed media data.

The claimed invention enables a user to specify an amount of processing functions to be performed by a printer and a separate processing device in order to perform multimedia functions such as event detection, sound localization, speech recognition, face detection and the like on time-based media. Based on the received

user input, a portion of the processing is allocated to the printer and a portion to the processing device. After the processing is completed, printer output and electronic output are provided. Enabling the user to specify the amount of processing to be done by each of the printer and a second processing device allows the user to have more control over the process of performing the time-based media processing. The user is free to make choices about processing allocation that are non-optimal from an efficiency perspective—this provides an advantage from a sales and marketing perspective, because it not only puts the user in control, it also allows the user to feel as though he is in control, through manipulation of the user interface.

The claimed invention is not taught by the cited references, either alone or in combination.

Jacobs discloses a method and apparatus for converting outline data to raster data. Jacobs teaches using multiple processors in parallel to perform rasterizing operations, and sending the rasterized data to a processor that then executes a draw order. Jacobs is directed at solving the problem of being able to provide rasterized data quickly enough to support the high-speed operation of a printer such as a laser printer. See, for example, Jacobs col. 1, line 29 – col. 2, line 15. Jacobs does not disclose the claimed invention, however. For example, Jacobs does not disclose the claimed element of receiving user input and “determining from the user input a portion of the processing to be allocated to the printer and a portion of the processing to be allocated to the processing device”.

Motoyama teaches a video processing method and apparatus for color conversion and color adjustment. Motoyama addresses a problem in the prior art in which video color correction causes loss of gradation, and additionally provides an improved way of specifying a particular area to be subjected to color adjustment. See, for example, Motoyama col. 1, lines 30-43. Although Motoyama includes a user interface, the UI does not provide a user with an opportunity to specify “an amount of processing to be performed by a printer, and an amount of processing to be performed by a processing device,” as claimed, nor does it address the deficiencies

of Jacobs by disclosing the claimed step of “determining from the user input a portion of the processing to be allocated to the printer and a portion of the processing to be allocated to the processing device”. Accordingly, Motoyama does not disclose the claimed invention, either alone or in combination with Jacobs.

Gopal describes a method for load balancing in a heterogeneous computing environment (HCE), addressing the problem of how to perform load balancing in a heterogeneous, rather than a homogeneous computing environment. Gopal, p. 1. Gopal proposes a priority-based algorithm that dynamically adjusts the quality of service for processes of a parallel program by detecting dependences among them. *Id.* However, Gopal does not disclose the claimed step of receiving user input specifying “an amount of processing to be performed by a printer, and an amount of processing to be performed by a processing device,” as claimed, nor does it address the deficiencies of Jacobs and Motoyama by disclosing the claimed step of “determining from the user input a portion of the processing to be allocated to the printer and a portion of the processing to be allocated to the processing device”.

Indeed, none of the references, either alone or in combination with one another, teach, suggest or disclose the claimed invention. Accordingly, claim 81 is patentable over the cited references.

Claim 1 is also patentable over the cited references. Claim 1 as amended recites:

A system for printing time-based media data, the system comprising:
a user interface for receiving user input, the user input specifying a multimedia function to perform on the time-based media and including a first amount of processing to be performed by a printer and a second amount of processing to be performed by a processing device;
a printer, communicatively coupled to the user interface, adapted to perform the first amount of processing indicated by the received input, and to instruct a processing device to perform the second amount of processing indicated by the received input, in order to perform the specified multimedia function on the time-based media; and

a processing device, adapted to perform the second amount of processing in response to instruction from the printer.

The deficiencies of the references discussed above with respect to claim 81 are also applicable to the language of claim 1. For example, the cited references do not disclose a user interface that receives input “including a first amount of processing to be performed by a printer and a second amount of processing to be performed by a processing device,” as claimed. Accordingly, claim 81 is patentable over the cited references.

The dependent claims, 2-80 and 82-118 are also patentable over the cited references, both because they depend from patentable independent claim as well as because they each recite their own patentable features.

The Examiner is asked to issue a Notice of Allowance for all pending claims. If any matters remain outstanding prior to allowance of the claims, the Examiner is invited to contact the undersigned attorney at (415) 875-2358 or via e-mail at dbrownstone@fenwick.com. Applicants acknowledge that a copy of any electronic mail communications will be made of record in the application file per MPEP § 502.03.

Respectfully submitted,
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